

**REMARKS**

The Applicants request reconsideration of the rejection.

Claims 1, 3-5, 7, 8, 28 and 29 are pending.

Claim 20 was rejected under 35 U.S.C. §102(e) as being anticipated by Shih et al. This rejection has been rendered moot in view of the cancellation of claim 20 without prejudice or disclaimer.

Claims 1, 3-5, 7-9 and 20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Shih, U.S. 6,314,063 (Shih) in view of Kume, U.S. 5,727,111 (Kume). The Applicants traverse as follows.

An important feature of the invention, which has been argued previously and reasserted here, is the provision of a recess in the substrate in which the first and second laser light sources are mounted. Claim 1 has been amended again in an attempt to specify this feature. As now claimed, the first and second laser light sources are "mounted to a recessed surface in a recess formed in a substrate, said substrate having been partially removed to form the recess." By this feature, the overall thickness of the optical head is reduced.

In contrast, Shih does not disclose a recess formed in a substrate on which the laser light sources are mounted, but instead shows a stepped submount 312, itself mounted on a

surface supporting the optical elements of the head, supporting the laser light sources and which has no recess. This construction cannot be made thin like the present optical head.

The secondary reference to Kume is cited by the Examiner as disclosing a third photodetector for monitoring light quantity. However, Kume's third photodetector 53g is formed on a substrate 53b, but not in a recess thereof. Thus, even in combination with Shih, Kume teaches a different construction that does not achieve the thickness-reduction of the present invention.

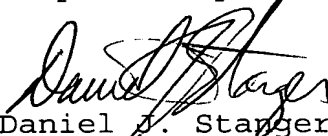
Furthermore, claim 1 has been amended to recite that the mirror, first photodetector means, second photodetector means, and third photodetector means are formed in the substrate monolithically, and that the thickness of the substrate in the recess is thinner than a region of the substrate that has not been partially removed to form the recess. In part, this added language reinforces the structure of the recess, which is not found in the prior art. In addition, though, this language provides added structural differentiation in claiming the "monolithic" formation of the mirror and three photodetector means in the substrate.

Claims 8 and 9 were rejected under 35 U.S.C. §103(a) as being unpatentable over Shih and Kume and further in view of Kawachi et al, U.S. 4,750,799 (Kawachi).

Kawachi is cited as teaching the optical alignment of the substrate and a laser light source mounted thereon. Without admitting to the extension of Kawachi's teachings as asserted by the Examiner, the Applicants simply note that Kawachi relates to the disparate field of optical fiber communications, and that Kawachi also does not teach the mounting of laser light sources in a recess formed in a substrate as claimed.

In view of the foregoing remarks and amendments, Applicants request reconsideration of the rejection and allowance of the claims.

Respectfully submitted,



Daniel P. Stanger  
Registration No. 32,846  
Attorney for Applicants

MATTINGLY, STANGER & MALUR, P.C.  
1800 Diagonal Road, Suite 370  
Alexandria, Virginia 22314  
Telephone: (703) 684-1120  
Facsimile: (703) 684-1157  
Date: June 30, 2004